

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

SANDERLING MANAGEMENT LTD.,

Plaintiff,

v.

SNAP INC.,

Defendants.

Case No.

DEMAND FOR JURY TRIAL

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Sanderling Management Ltd. (“Sanderling” or “Plaintiff”), by and through the undersigned counsel, alleges the following for its Complaint against Defendant Snap Inc. (“Snap” or “Defendant”):

NATURE OF THE ACTION

1. As set forth herein, Sanderling alleges that Snap has infringed and is infringing U.S. Patent No. 9,355,412 (the “’412 Patent”), U.S. Patent No. 9,639,866 (the “’866 Patent”) and U.S. Patent No. 10,108,986 (the “’986 Patent”) (the ’412 Patent, ’866 Patent and ’986 Patent are collectively the “Asserted Patents,” and each an “Asserted Patent”).

THE PARTIES

2. Sanderling is a limited company incorporated in, and with a principal office in, the British Virgin Islands.

3. Snap is a Delaware corporation that does business throughout the United States, including in Illinois. Snap has offices in multiple states, including at 646-648 N Clark Street, Chicago, IL 60654.

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1, *et seq.*

5. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a). Alternatively, this Court has subject matter jurisdiction based on diversity of citizenship pursuant to 28 U.S.C. § 1332.

6. Snap is subject to personal jurisdiction in this Court because it conducts substantial business in Illinois, including: (i) it maintains an office in the State of Illinois; (ii) it is registered with the Illinois Secretary of State as a corporation that is authorized to do business within the state, and has appointed a registered agent in Illinois; (iii) it regularly does, conducts and/or solicits business in the State of Illinois; (iv) Snap has at least minimum contacts within the State of Illinois; (v) Snap has purposefully availed itself of the privileges, protections and benefits of conducted business in the State of Illinois; (vi) at least some of Snap's activities from which this action arises, including acts of infringement, occurred within the State of Illinois; and (vii) Snap derives substantial revenue from goods, products and/or services provided to residents of Illinois.

7. Venue is proper in this district because Snap maintains an office and employees in this district and Snap has committed acts of infringement in this district. *See, e.g., Offices, SNAP INC.,* <https://careers.snap.com/offices> (last visited Aug. 5, 2020). Moreover, upon information and belief, Snap, directly and/or through intermediaries, sells, distributes, makes, uses, imports, offers for sale and/or advertises infringing products or services within this District, and has many customers within this district and the State of Illinois.

FACTUAL ALLEGATIONS

I. Background

8. Michael Jacobs, founder and Director of Sanderling, is the inventor of the Asserted Patents.

9. Sanderling is the assignee and applicant for each of the Asserted Patents. Sanderling has the exclusive right to enforce, sue and recover damages for past and future infringement of the Asserted Patents.

10. The patented inventions arise from Mr. Jacobs' lifelong passion for photography and his professional work in technology management.

11. Camera-enabled mobile phones and smartphones have become a predominant way to take photographs and videos, but prior to Mr. Jacobs' inventions, companies could not quickly and effectively create and distribute digital image processing functions (for example, to transform photographs or videos from a mobile phone or smartphone with an image or effect often associated with a particular company, event, or location) among a large number of targeted users, either at one location or simultaneously at multiple locations. These technical limitations prevented companies from efficiently using, distributing and profiting from branded images and videos at scale. Mr. Jacobs set out to solve these problems, and his technological solutions resulted in the inventions set forth and claimed in the Asserted Patents.

12. The inventions claimed in the Asserted Patents met the demand for a scalable and efficient way for mobile and smartphone users to easily and quickly create and share targeted branded images or videos. While the inventions claimed in the Asserted Patents offer multiple improvements over the prior art, of particular note are the improvements to scalability and speed. Indeed, the inventions claimed in the Asserted Patents enable a company that is in the business of

creating and distributing high volumes of branded images--such as Snap--to perform those functions at quick speeds for a large and increasing number of users, while at the same time providing a highly intuitive and smooth user experience.

13. With the rise of social media platforms--and, especially, visual-centric platforms such as Snap's Snapchat platform--the use of branded images or videos as a means for mobile or smartphone users to communicate with one another and share experiences has substantially grown. Likewise, the use of branded images or videos by users and businesses for marketing brands, places, and products on social media has substantially grown. For example, Snapchat purports to have an average of over 238 million daily active users that create an average of over 4 billion snaps every day. See *Investor Presentation*, SNAP INC. (Jul. 2020), <https://investor.snap.com/~/media/Files/S/Snap-IR/reports-and-presentations/july-2020-investor-presentation-v3.pdf>.

14. Snap exploits branded images and videos as a revenue stream. For example, Snap offers “filters” and “lenses,” which are used to create branded images and videos, to businesses and users.

15. Filters and lenses are a substantial source of revenue for Snap. Indeed, in its SEC Form 10-K for the fiscal year ending December 31, 2018, Snap stated: “We monetize our business primarily through advertising. Our advertising products include Snap Ads and Sponsored Creative Tools like Sponsored Lenses and Sponsored Geofilters, and measurement services. While our advertising business is still developing it has grown rapidly.” That year, Snap reported \$1,180,446,000 in revenue.

16. In its SEC Form 10-K for the fiscal year ending December 31, 2019, Snap reported \$1,715,534,000, “substantially all of” which is derived from Snap’s aforementioned advertising

products, which include sponsored lenses and sponsored filters (including, but not limited to, geofilters).

17. Sponsored lenses and filters are central to Snap's generation of revenue.

18. Filters and lenses are features of Snapchat that are highly demanded and enjoyed by users and sponsors alike. For example, most of Snapchat's average of 238 million daily users engage with filters or lenses each day, leading to *billions* of filter and lens views per day. *See, e.g., Investor Presentation, SNAP INC. (Jul. 2020),* <https://investor.snap.com/~/media/Files/S/Snap-IR/reports-and-presentations/july-2020-investor-presentation-v3.pdf>; Kevin Tran, *Snapchat sees massive boost in geofilters views,* BUSINESS INSIDER (Jul. 18, 2017, 7:33 AM), <https://www.businessinsider.com/snapchat-sees-massive-boost-in-geofilter-views-2017-7>;

Holiday Gift Guide 2019, SNAP INC., https://assets.ctfassets.net/inb32lme5009/6crsbiikafj37EtnVO8ntE/fe1911a5e9fbc9ca2c91dbe02c72cc44/2019_Holiday_Gift_Guide_US_Generic.pdf (last visited Aug. 5, 2020) (over 14 billion filters and 12 billion lenses viewed over 11 days in December 2018).

19. As discussed in greater detail below, Snap's targeted, sponsored lenses and filters infringe the claims of the Asserted Patents. Snap's infringement of the Asserted Patents is thus central to its generation of revenue.

II. The Asserted Patents

20. The '412 Patent is entitled "Dynamic Promotional Layout Management and Distribution Rules." The '412 Patent was duly issued by the USPTO on May 31, 2016. The '412 Patent claims a priority date of January 28, 2013. A copy of the '412 Patent is attached hereto as Exhibit A. The content of the '412 Patent is incorporated by reference. With respect to the '412

Patent, Sanderling is not subject to any marking requirements under 35 U.S.C. § 287 and/or has complied with any such requirements.

21. The '866 Patent is entitled "Dynamic Promotional Layout Management and Distribution Rules." The '866 Patent was duly issued by the USPTO on May 2, 2017. The '866 Patent claims a priority date of January 28, 2013. A copy of the '866 Patent is attached hereto as Exhibit B. The content of the '866 Patent is incorporated by reference. With respect to the '866 Patent, Sanderling is not subject to any marking requirements under 35 U.S.C. § 287 and/or has complied with any such requirements.

22. The '986 Patent is entitled "Dynamic Promotional Layout Management and Distribution Rules." The '986 Patent was duly issued by the USPTO on October 23, 2018. The '986 Patent claims a priority date of January 28, 2013. A copy of the '986 Patent is attached hereto as Exhibit C. The content of the '986 Patent is incorporated by reference. With respect to the '986 Patent, Sanderling is not subject to any marking requirements under 35 U.S.C. § 287 and/or has complied with any such requirements.

23. Each of the Asserted Patents claims technical solutions to enabling dynamic loading of one or more digital branding functions associated with one or more distribution rules, using the distribution rule to target a group of end users, and enabling use of one or more digital branding functions by each member of the end users group.

III. The Accused Products and Services

24. Snap is a camera and social media company.

25. Snap offers the Snapchat application, a social media platform through which images and videos can be shared.

26. Snapchat provides the ability to add filters or lenses to images or videos. As Snap explains, filters are “unique overlays that can be applied over a Snap for an artistic effect. They can contain stylized text and images that convey where the Snap was taken, like a city, shop, restaurant, event, etc.” *See Ad Types Overview*, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/snap-ads-intro> (last visited Aug. 5, 2020). Lenses “use augmented reality to place objects and animated characters in Snaps - it appears as if they’re really there,” and they are used “to transform [a snap, image, or video] in a multitude of fun and engaging ways - puppy ears, flower crowns, Halloween masks, the possibilities are endless.” *See id.*

27. Both filters and lenses can be--but do not necessarily need to be--sponsored by a brand, organization, person or other entity. Sponsored filters and lenses are used to market and advertise brands, places, products and more. Snap has many examples of sponsored filters and lenses on its website.

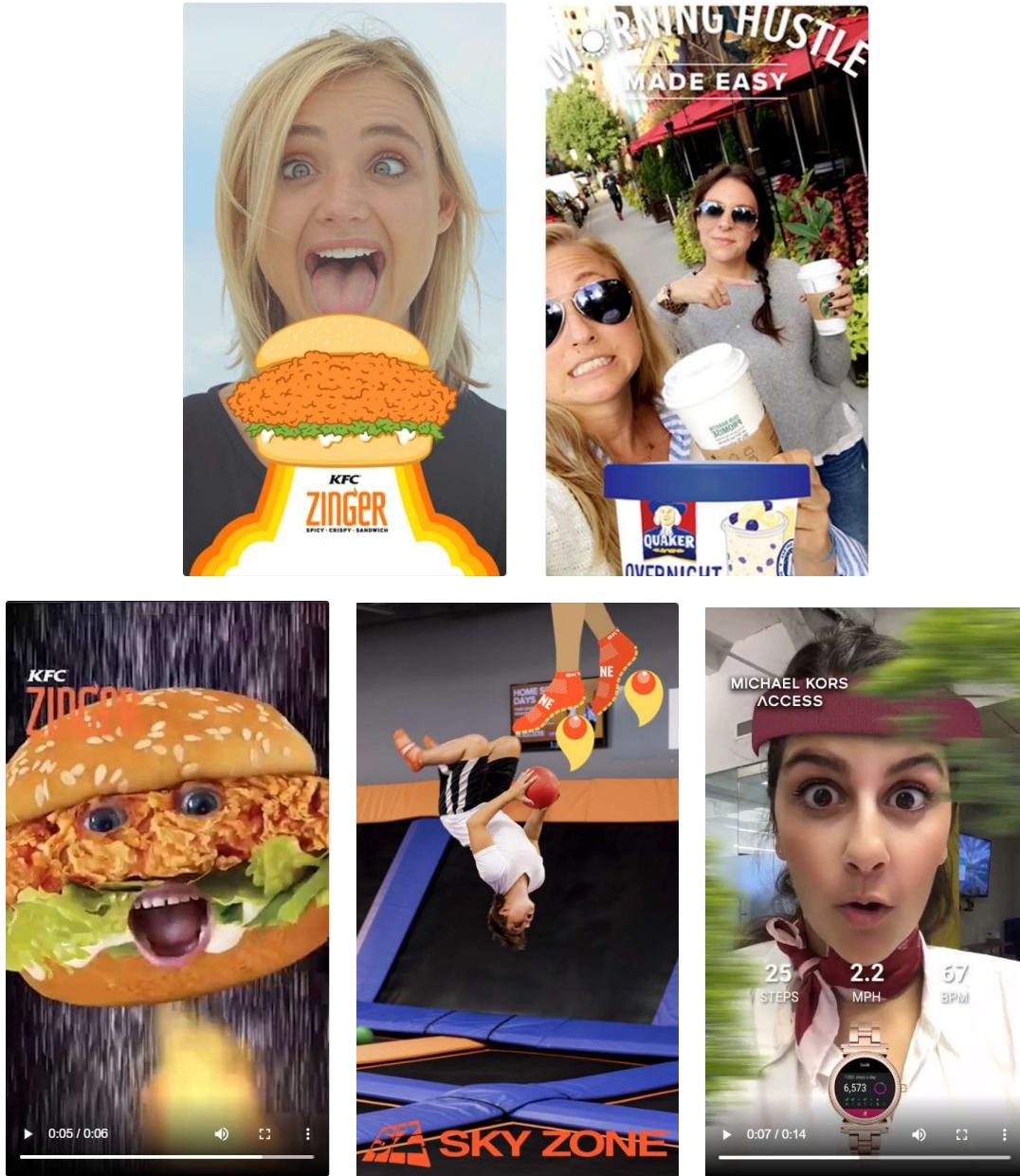
28. As just a few examples, and as shown below, Snap made KFC lenses and filters available to targeted users at KFC’s locations to promote the launch of KFC’s Zinger Sandwich,¹ made Quaker Oats filters available to targeted users at different times to promote the launch of their new Overnight Oats product,² made Sky Zone filters available at Sky Zone locations,³ and made Michael Kors “audience-targeted” lens and filters to promote the launch of its Access smartwatch.⁴

¹ See *KFC Success Story*, SNAPCHAT ADS FOR BUSINESS, <https://forbusiness.snapchat.com/inspiration/kfc> (last visited Aug. 5, 2020).

² See *Quaker Oats Success Story*, SNAPCHAT ADS FOR BUSINESS, <https://forbusiness.snapchat.com/inspiration/quaker-oats-drives-efficient-reach-with-audience-filters> (last visited Aug. 5, 2020).

³ See *Sky Zone Success Story*, SNAPCHAT ADS FOR BUSINESS, <https://forbusiness.snapchat.com/inspiration/sky-zone> (last visited Aug. 5, 2020).

⁴ See *Michael Kors Success Story*, SNAPCHAT ADS FOR BUSINESS, <https://forbusiness.snapchat.com/inspiration/michael-kors-smartwatch-saw-29-lift-in-product-awareness> (last visited Aug. 5, 2020).



29. As used herein, the term "Accused Products and Services" refers to filters and lenses as used, created, distributed, enabled and/or made available on and through Snapchat.

COUNT I
INFRINGEMENT OF THE '412 PATENT

30. Sanderling re-alleges and incorporates by reference the allegations set forth in paragraphs 1 through 29.

31. Snap had knowledge of the '412 Patent prior to the filing of this lawsuit.

32. Indeed, upon information and belief, Snap was aware of the '412 Patent--and its applicability to Snapchat's actual and/or planned features--by no later than 2017, when Snap: (a) was involved in discussions concerning the Asserted Patents, and (b) identified at least the parent U.S. Patent No. 9,123,074 Patent ("'074 Patent") in a number of its IDS Forms to the USPTO.

33. Snap has infringed and is infringing the '412 Patent--including at least claims 1 through 12--literally or under the doctrine of equivalents, by making, using, importing, selling and/or offering for sale in the United States the Accused Products and Services without Sanderling's permission, in violation of the patent laws of the United States, and in particular 35 U.S.C. §§ 271, *et seq.*

34. Specifically, the Accused Products and Services practice every single element of at least claims 1 through 12 of the '412 Patent.

35. For example, Claim 1 of the '412 Patent claims:⁵

1. A computerized method of distributing a digital image processing function, said computerized method comprising:
 - using at least one server having at least one hardware processor and over a network to access a database storing at least one digital image processing function associated with at least one distribution rule defining a geographic location;
 - receiving, over said network, a Global Positioning System (GPS) location indication from each of a plurality of mobile devices, each said location indication is determined according to a GPS module executed by one of said plurality of mobile devices;
 - matching, using said at least one at least one [sic] hardware processor, each said GPS location indication with said geographic location; and
 - automatically forwarding, over said network and in response to receiving said Global Positioning System (GPS) location indication, said at least one digital image processing function to at least one mobile device of said plurality of mobile devices,

⁵ The allegations contained herein regarding infringement of Claim 1 are merely representative; they illustrate one way in which the Accused Products and Services infringe the '412 Patent, and are not intended to limit Plaintiff's allegations that the Accused Products and Services infringe claims 1 through 12 of the '412 Patent.

said at least one mobile device having a respective said GPS location indication which matches said geographic location; wherein said at least one image processing function is set to be used by an application executed on said at least one mobile device to process a digital image designated at said at least one mobile device to create an output digital image.

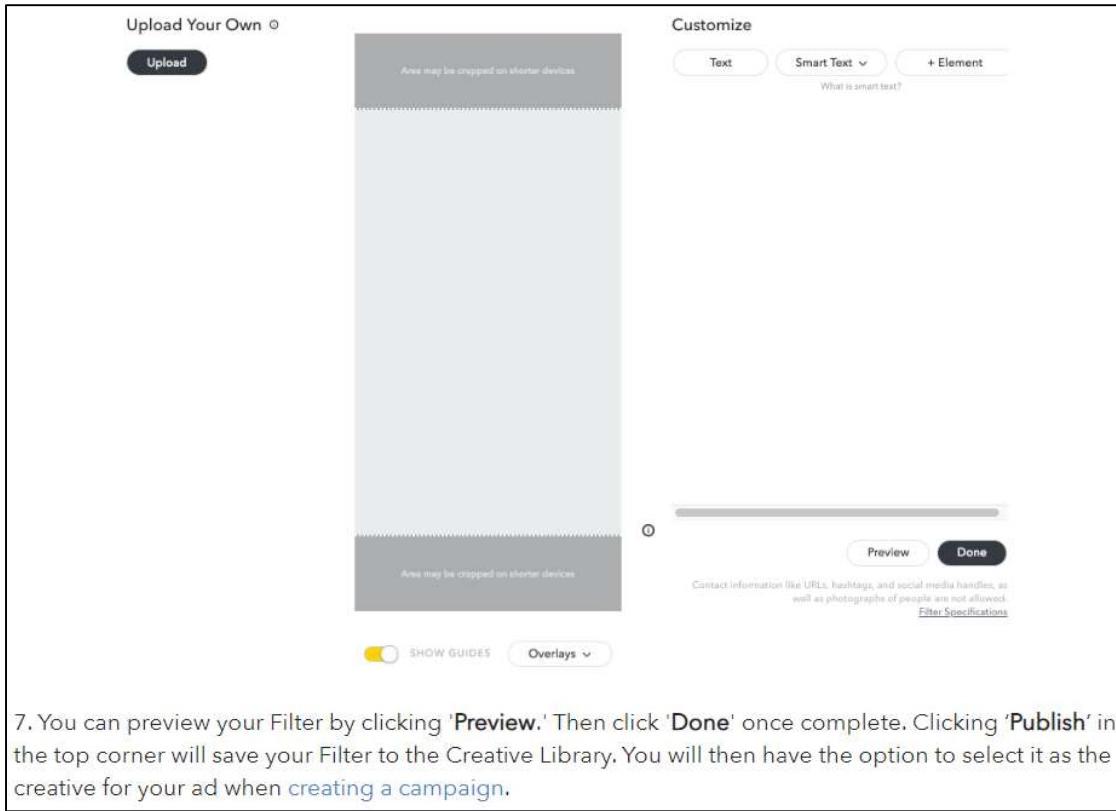
36. As shown and discussed above, the Accused Products and Services are “[a] computerized method of distributing a digital image processing function,” as evidenced by the images and descriptions in, for example, paragraph 28, above, of the Snap filters and lenses, which add overlays, artwork, animations, and the like to images and videos.

37. The Accused Products and Services involve “using at least one server having at least one hardware processor and over a network to access a database storing at least one digital image processing function associated with at least one distribution rule defining a geographic location,” as claimed. Digital image processing functions (*e.g.*, filters and lenses) in the Accused Products and Services are associated with at least one distribution rule and accessed using at least one server having at least one hardware processor and over a network to access a database (Ads Manager) storing the functions as shown below. Snap develops and creates, and encourages and assists its customers and business partners to develop or create, filters and lenses, and uploads them to Snap’s Ads Manager:

Lens Web Builder

Advertisers can create their own Lenses directly in their browser with Lens Web Builder, a web-based application for creating augmented reality ads in Ads Manager.

See *Create Lenses*, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/lens-create-ads>. (last visited Aug. 5, 2020).



7. You can preview your Filter by clicking '**Preview**.' Then click '**Done**' once complete. Clicking '**Publish**' in the top corner will save your Filter to the Creative Library. You will then have the option to select it as the creative for your ad when *creating a campaign*.

See Filters in Ads Manager, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/upload-filter> (last visited Aug. 5, 2020). These filters and lenses are then accessible for Snap to access and publish, including as requested by the user or sponsor. *See, e.g., Advanced Campaign Guide, SNAP INC., <https://businesshelp.snapchat.com/en-US/a/create-first-campaign>* (last visited Aug. 5, 2020) (discussing process of setting up ad campaign and review by Snap team before publishing or delivery).

38. The filter or lens is associated with at least one distribution rule. For example, a distribution rule in the Accused Products and Services can relate to users' "online and real world interests and behaviors," specific locations or addresses, location categories (*e.g.*, ski resorts, beaches, bars, etc.), users' ages, users' income, certain days or times, etc. *See, e.g., Edit Campaigns, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/edit-campaign>* (last visited Aug. 5, 2020); *Age-Target* *On-Demand* *Filters*, SNAP INC.,

<https://businesshelp.snapchat.com/en-US/article/age-targeting> (last visited Aug. 5, 2020);
Dayparting, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/dayparting> (last visited Aug. 5, 2020); *see also*:

When creating your campaigns, you can choose predefined audiences to help you reach specific Snapchatters.

Predefined Audiences have been built and packaged using Snapchat and third-party data, allowing you to reach people based on their online and real world interests and behaviors.

Predefined Audiences, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/predefined-audience> (last visited Aug. 5, 2020);

You can choose to target an exact location by inputting a specific address or a latitude and longitude pair, or dropping a pin in an exact location on the map.

You can also choose a **location radius** by selecting how many miles (in the United States) or kilometers (rest of world) you'd like to target around an address, latitude and longitude pair, places (cities/municipalities), or places of interest. You can do this by inputting an amount in the bottom right corner or by clicking the green pin inside the radius.

These are pre-determined packages you can target. With Location Categories, you can search for certain locations you're interested in that are provided by Snapchat. These spaces can range from music venues and beaches, to car dealers and movie theaters. You can access Location Categories by clicking '**Target Locations on Map**' and searching for a specific Location Category.

Location Targeting, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/location-targeting> (last visited Aug. 5, 2020);

6. Select start and end dates and times for when you would like Snapchatters to be able to use your Filter. By selecting 'Repeating Event' you can choose to have your Filter run at certain times daily or weekly. An On-Demand Filter can be active for one hour up to 30 consecutive or non-consecutive calendar days or even year-round by purchasing an Annual Filter.

On-Demand Filters, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/purchase-filter> (last visited Aug. 5, 2020).

39. The Accused Products and Services also “receiv[e] over said network, a Global Positioning System (GPS) location indication from each of a plurality of mobile devices, each said

location indication is determined according to a GPS module executed by one of said plurality of mobile devices,” as claimed. For example, Snap receives from each user’s mobile device its location, which is determined according to a GPS module installed on the mobile device, so that Snap can send applicable filters and lenses, among other things. As explained by Snap, the “[l]ocation indicators are used from Snapchatters’ devices to determine where they are.” *See, e.g., Filters FAQ, SNAP INC., <https://support.snapchat.com/en-US/article/on-demand-geofilter-faq>* (last visited Aug. 5, 2020).

40. The Accused Products and Services also involve “matching, using said at least one [] hardware processor, each said GPS location indication with said geographic location; and automatically forwarding, over said network and in response to receiving said Global Positioning System (GPS) location indication, said at least one digital image processing function to at least one mobile device of said plurality of mobile devices, said at least one mobile device having a respective said GPS location indication which matches said geographic location,” as claimed. As explained by Snap, “[p]ersonalized Filters become available to Snapchatters when they’re located in the Geofence during the scheduled time,” *e.g.*, when there is a match between their location and the Geofence (distribution rule). *See id; Reach and Frequency Campaign Guide, SNAP INC., <https://businesshelp.snapchat.com/en-US/a/reach-frequency-campaign>* (last visited Aug. 5, 2020) (discussing availability of lenses based on location or other distribution rules). The Geofence is the location or area in which Snap makes a filter or lens available to Snapchatters, as explained above in regard to the distribution rules and shown below.

7. Select your location and draw your Geofence, the area in which Snapchatters can access your On-Demand Filter. The price should display in the top right corner. Once you’re done, click ‘Checkout.’



See *On-Demand Filters*, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/purchase-filter> (last visited Aug. 5, 2020).

41. Then, in response to receiving the GPS location indication from the mobile devices, the digital image processing functions (filters or lenses) are automatically forwarded to the mobile devices having a GPS indication that matches the distribution rule geographic location as explained above. As mentioned, the matching filters and lenses are made available to Snapchatters “when they’re located” in the location associated with the applicable Geofence, and meet any additional applicable distribution rules. The filters (on the left below) and lenses (on the right below) are made available, for example, as follows:



Filters

Take part in Snapchatters' conversations

Filters are artistic overlays that appear after you take a Snap and swipe left or right. Take part in Snapchatters' conversations as they visit neighborhoods, parks, restaurants, shops, and during key holidays.



See Snapchat Adformats, SNAP INC., <https://forbusiness.snapchat.com/advertising/ad-formats> (last visited Aug. 5, 2020). As shown, the filters and lenses are then “set to be used by an application [e.g., Snapchat] executed on said at least one mobile device to process a digital image [e.g., photo or video] designated at said at least one mobile device to create an output digital image [e.g., the photo or video with the filter or lens selected and applied].” The filters and lenses are automatically and quickly added to the Snapchat application without any user or manual involvement.

42. The Accused Products and Services include each and every element of claims 2-12 as well. For example, many of the filters and lenses comprise an overlay function (claim 2) or add an icon to the photo or video (claim 9), as shown, for example, in paragraph 28 above. Many of the filters and lenses also comprise a black and white, sepia, or antique function set to be used by the application as set forth in claim 3 and shown, for example, below. *See, e.g., How to Use Filters*, SNAP INC., <https://support.snapchat.com/en-US/a/geofilters> (last visited Aug. 5, 2020) (“Filters can add color effects”); *L’Oreal Men Expert Success Story*, SNAP INC.,

<https://forbusiness.snapchat.com/inspiration/loreal-men-expert-successfully-launched-their-new-styling-products-via-snapchat> (last visited Aug. 5, 2020) (shown below);



Snap ML Overview, SNAP INC., <https://lensstudio.snapchat.com/guides/machine-learning/ml-overview/> (last visited Aug. 5, 2020) (referring to lenses; shown below);

For example, one model may take the camera input, run it through the computational graph, and arrive at a texture which colors the sky in white, and everywhere else in black. In other words, this model segments the sky.



Custom Segmentation, SNAP INC., <https://lensstudio.snapchat.com/templates/ml/custom-segmentation/> (last visited Aug. 5, 2020) (discussing color correction for lenses; shown below).

For example, let's say we added a color correction object to make our image be **sepia** toned.



Furthermore, the filters and lenses are set to be used by the Snapchat application to process videos (claim 12) in addition to images. *See, e.g., Create a Snap, SNAP INC.,* <https://support.snapchat.com/en-US/a/capture-a-snap> (last visited Aug. 5, 2020) (discussing Snap videos and the use of filters and lenses).

43. In the Accused Products and Services, the at least one server having at least one hardware processor and over a network to access a database accesses a plurality of image processing functions (filters or lenses), each with its associated distribution rule, as set forth in claim 4, and a plurality of filters or lenses associated with a plurality of distribution rules are forwarded over the network to the applicable user's mobile device based on a match between each distribution rule location and the mobile device's GPS location indication as set forth in claim 5. As explained by Snap, a plurality of filters or lenses are made available to a user at any given time based on distribution rules they match with, including location. *See, e.g., Filters FAQ, SNAP INC.,* <https://support.snapchat.com/en-US/a/on-demand-geofilter-faq> (last visited Aug. 5, 2020) (“Personalized Filters become available to Snapchatters when they're located in the Geofence during the scheduled time.”); *see also* paragraph 40 *supra*. Further, as explained and shown in paragraph 41, above, and as set forth in claim 6, the Snapchat application includes a graphical user interface (“GUI”) that displays the plurality of processing functions.

44. The Accused Products and Services, and specifically the Snapchat application, further include program code to publish the output image (*e.g.*, image with the filter or lens applied) in one or more social networks (*e.g.*, Snapchat) as required by claim 7 and explained, for example:

To add a Filter to a Snap...

1. Create a Snap 
2. Swipe left or right to choose a Filter
3. Tap  to layer multiple Filters

To use Face Lenses...

1. Go to the Camera screen
2. Tap on a **face** to launch the carousel 
3. Swipe on the carousel and tap one of the Lenses 
4. Tap or hold  to capture the Snap!

To send a Snap...

1. Create a Snap 
2. Tap  at the bottom to go to the **Send To** screen
3. Select the friends, Groups, and Stories you want to send the Snap to 
4. Tap  at the bottom to send your Snap!

See *How to Use Filters*, SNAP INC., <https://support.snapchat.com/en-US/article/geofilters> (last visited Aug. 5, 2020); *How to Use Lenses*, SNAP INC., <https://support.snapchat.com/en-US/article/face-world-lenses> (last visited Aug. 5, 2020); *Send a Snap*, SNAP INC., <https://support.snapchat.com/en-US/article/send-snap> (last visited Aug. 5, 2020). The Snapchat application also includes program code to store the output image on the mobile device as set forth in claim 8:

You can save Snaps and Stories to Memories, send your Memories to friends, access your Camera Roll, and more!

Swipe up from the Camera screen to open Memories 

Save a New Snap to Memories 

To save a Snap to Memories, create a Snap and tap  at the bottom.

Send, Edit, Delete, or Export Snaps in Memories

You can send saved Snaps to your friends, add them to [My Story](#), delete them from Memories, or export them to your Camera Roll.

See, e.g., How to Use Memories, SNAP INC., <https://support.snapchat.com/en-US/a/about-memories> (last visited Aug. 5, 2020).

45. Finally, the Accused Products and Services use at least one server having at least one hardware processor and over a network to access a database comprising altering, in a time interval of a few seconds or less, a distribution rule, as set forth in claim 10. For example, Snap explains how to quickly and easily edit campaign distribution rules through Ads Manager. *See, e.g., Edit Campaigns, SNAP INC., <https://businesshelp.snapchat.com/en-US/a/edit-campaign>* (last visited Aug. 5, 2020) (“1. Log in to Ads Manager. 2. Click the menu in the top corner and select ‘Manage Ads.’ 3. Select ‘Ad Sets’ and click ‘Edit’ under the name of the ad set you’d like to edit. 4. Make adjustments to your ad set and click ‘Save & Close.’”); *Snapchat lets sports fans overlay real-time graphics on images, videos, DIGITALTRENDS (Feb. 1, 2016), <https://www.digitaltrends.com/social-media/snapchat-live-score-geofilters/>.* As explained, the filters and lenses are also “set to be used in a time interval of few seconds or less” by the Snap application on each mobile device as set forth above and claimed in claim 11.

46. Snap has also instructed and/or directed, and continues to instruct and/or direct, third parties, including customers and sponsors, in the United States to use the Accused Products and Services, which directly infringed and are infringing claims 1-12 of the ’412 Patent. As set forth above, Snap provides instructions to third parties on how to use the Accused Products and Services in a manner that Snap knows infringes the claims of the ’412 Patent. At least Snap’s Business Center and Snapchat Support pages, and the content contained therein, describe how to use the infringing Accused Products and Services and highlight infringing features, including the

use of distribution rules and content processing functions, to customers. *See, e.g., Business Center, SNAP INC., <https://businesshelp.snapchat.com/en-US>* (last visited Aug. 5, 2020); *Snapchat Support, SNAP INC., <https://support.snapchat.com/en-US>* (last visited Aug. 5, 2020).

47. Upon information and belief, at least as early as 2017, Snap knew or was willfully blind to how the Accused Products and Services infringed and infringe the '412 Patent. Nevertheless, Snap has been and is actively inducing infringement of the '412 Patent by actively and knowingly inducing third parties to commit acts that Snap knows constitute infringement of the '412 Patent.

48. Thus, Snap has actively and knowingly intended to aid, abet, direct, encourage, or otherwise instruct third parties via the sale of the Accused Products and Services, and provision of instructions regarding using such Accused Products and Services in the manner described in the asserted claims of the '412 Patent, to infringe the '412 Patent by and through their use of the Accused Products and Services. Therefore, Snap has induced, and continues to induce, infringement of claims 1-12 of the '412 Patent in violation of the patent laws of the United States, and in particular 35 U.S.C. §§ 271, *et seq.*

49. Snap's conduct, as described herein, also constitutes contributory infringement of '412 Patent. Snap knew that the Accused Products and Services were being made and distributed for the purpose of users and/or businesses to infringe the '412 Patent. Moreover, the Accused Products and Services have no substantial non-infringing uses, and are material to the infringement of the '412 Patent.

50. As a result of Snap's infringement of the '412 Patent, Sanderling has suffered and continues to suffer monetary damages, and seeks recovery in an amount to compensate Sanderling

for Snap's infringement, in no event less than a reasonable royalty for Snap's use of the patented invention, together with interest and costs as fixed by the Court.

51. On information and belief: (i) Snap cannot reasonably believe that its actions do not constitute infringement of the '412 Patent and/or are not highly likely to constitute infringement of the '412 Patent, and/or (ii) Snap knows or is willfully blind to the fact that its actions constitute infringement of the '412 Patent and/or are highly likely to constitute infringement of the '412 Patent. Nevertheless, Snap persists with its infringing activities. Accordingly, Snap has willfully infringed and/or will continue to willfully infringe one or more claims of the '412 Patent.

52. Pursuant to 35 U.S.C. § 284, enhanced damages of up to three times the amount found or assessed are therefore warranted against Snap. Snap's actions further make this an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

53. Sanderling has suffered and will continue to suffer irreparable harm in the future unless Snap's infringing activities are enjoined by this Court.

COUNT II
INFRINGEMENT OF THE '866 PATENT

54. Sanderling re-alleges and incorporates by reference the allegations set forth in paragraphs 1 through 53.

55. Snap had knowledge of the '866 Patent prior to the filing of this lawsuit.

56. Indeed, upon information and belief, Snap was aware of the '866 Patent--and its applicability to Snapchat's actual and/or planned features--by no later than 2017, when Snap: (a) was involved in discussions concerning the Asserted Patents, and (b) identified at least the grandparent '074 Patent in a number of its IDS Forms to the USPTO.

57. Snap has infringed and is infringing the '866 Patent--including at least claims 1 through 11--literally or under the doctrine of equivalents, by making, using, importing, selling and/or offering for sale in the United States the Accused Products and Services without Sanderling's permission, in violation of the patent laws of the United States, and in particular 35 U.S.C. §§ 271, *et seq.*

58. Specifically, the Accused Products and Services practice every single element of at least claims 1 through 11 of the '866 Patent.

59. For example, Claim 1 of the '866 Patent claims:⁶

1. A computerized method of distributing a digital image processing function, said computerized method comprising:
 - using by at least one server having at least one hardware processor one or more digital image processing functions, each of said digital image processing functions associated with a geographic location;
 - receiving, over a network, a Global Positioning System (GPS[]) location indication from each of a plurality of mobile devices, each said GPS location indication is determined according to a GPS module executed by one of said plurality of mobile devices; and
 - automatically forwarding, over said network at least one of said digital image processing functions to at least one of said plurality of mobile devices, based on a match between the geographical location associated with said at least one digital image processing function and the GPS location indication of said at least one mobile device;
 - wherein said at least one image processing function is set to be used by an application executed on said at least one mobile device to process a digital image designated at said at least one mobile device to create an output digital image.

60. As shown and discussed above, the Accused Products and Services are “[a] computerized method of distributing a digital image processing function,” as evidenced by the

⁶ The allegations contained herein regarding infringement of Claim 1 are merely representative; they illustrate one way in which the Accused Products and Services infringe the '866 Patent, and are not intended to limit Plaintiff's allegations that the Accused Products and Services infringe claims 1 through 11 of the '866 patent.

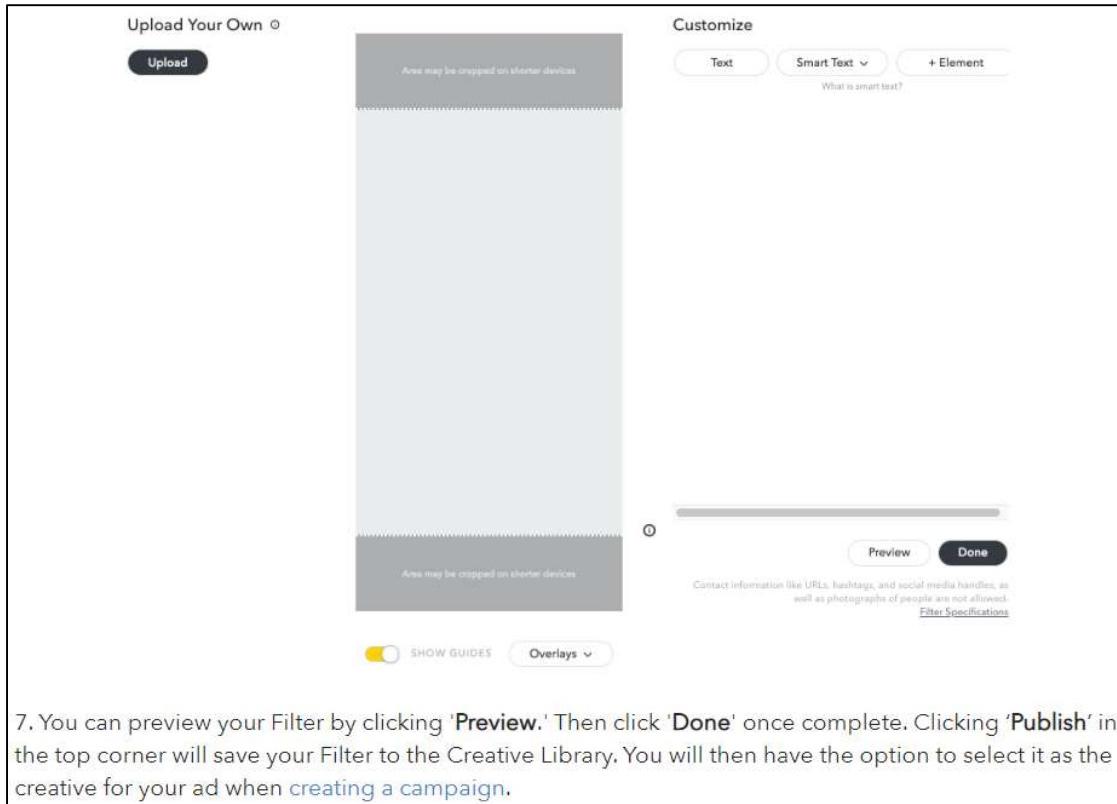
images and descriptions in, for example, paragraph 28, above, of the Snap filters and lenses, which add overlays, artwork, animations, and the like to images and videos.

61. The Accused Products and Services involve “using by at least one server having at least one hardware processor one or more digital image processing functions, each of said digital image processing functions associated with a geographic location,” as claimed. Digital image processing functions (*e.g.*, filters and lenses) in the Accused Products and Services are associated with at least one geographic location (distribution rule) and used by at least one server having at least one hardware processor as shown below. Snap develops and creates, and encourages and assists its customers and business partners to develop or create, filters and lenses, and uploads them to Snap’s Ads Manager:

Lens Web Builder

Advertisers can create their own Lenses directly in their browser with Lens Web Builder, a web-based application for creating augmented reality ads in Ads Manager.

See Create Lenses, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/lens-create-ads>.
(last visited Aug. 5, 2020).



See Filters in Ads Manager, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/upload-filter> (last visited Aug. 5, 2020). These filters and lenses are then accessible for Snap to access and publish, including as requested by the user or sponsor. *See, e.g., Advanced Campaign Guide, SNAP INC., <https://businesshelp.snapchat.com/en-US/a/create-first-campaign>* (last visited Aug. 5, 2020) (discussing process of setting up ad campaign and review by Snap team before publishing or delivery).

62. The filter or lens is associated with at least one geographic location:

You can choose to target an exact location by inputting a specific address or a latitude and longitude pair, or dropping a pin in an exact location on the map.

You can also choose a **location radius** by selecting how many miles (in the United States) or kilometers (rest of world) you'd like to target around an address, latitude and longitude pair, places (cities/municipalities), or places of interest. You can do this by inputting an amount in the bottom right corner or by clicking the green pin inside the radius.

These are pre-determined packages you can target. With Location Categories, you can search for certain locations you're interested in that are provided by Snapchat. These spaces can range from music venues and beaches, to car dealers and movie theaters. You can access Location Categories by clicking 'Target Locations on Map' and searching for a specific Location Category.

Location Targeting, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/location-targeting> (last visited Aug. 5, 2020).

63. The Accused Products and Services also involve “receiving, over a network, a Global Positioning System (GPS[]) location indication from each of a plurality of mobile devices, each said GPS location indication is determined according to a GPS module executed by one of said plurality of mobile devices,” as claimed. For example, Snap receives from each user’s mobile device its location, which is determined according to a GPS module installed on the mobile device, so that Snap can send applicable filters and lenses, among other things. As explained by Snap, the “[l]ocation indicators are used from Snapchatters’ devices to determine where they are.” *See, e.g., Filters FAQ*, SNAP INC., <https://support.snapchat.com/en-US/article/on-demand-geofilter-faq> (last visited Aug. 5, 2020).

64. The Accused Products and Services also involve “automatically forwarding, over said network at least one of said digital image processing functions to at least one of said plurality of mobile devices, based on a match between the geographical location associated with said at least one digital image processing function and the GPS location indication of said at least one mobile device,” as claimed. As explained by Snap, “[p]ersonalized Filters become available to Snapchatters when they’re located in the Geofence during the scheduled time,” *e.g.*, when there is a match between their location and the Geofence (distribution rule). *See id.; Reach and Frequency Campaign Guide*, SNAP INC., <https://businesshelp.snapchat.com/en-US/a/reach-frequency-campaign> (last visited Aug. 5, 2020) (discussing availability of lenses based on location or other

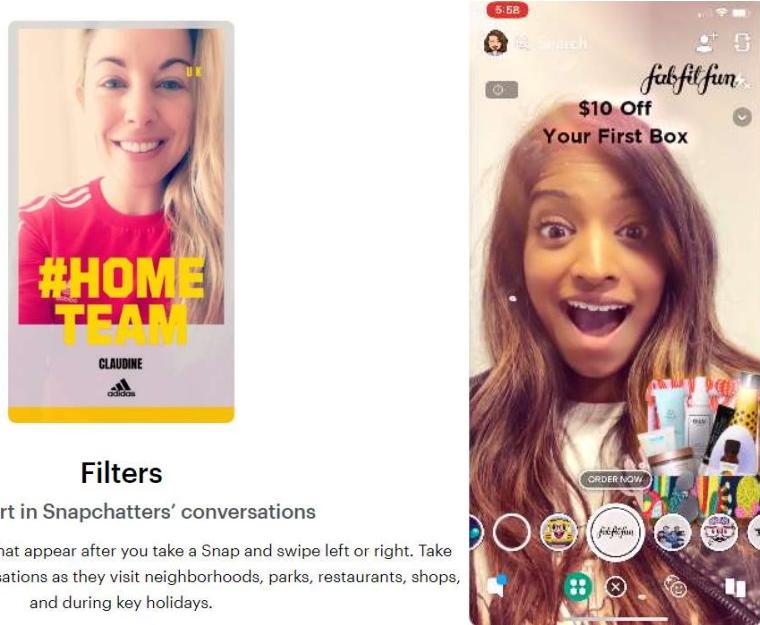
distribution rules). The Geofence is the location or area in which Snap makes the filter or lens available to Snapchatters, as explained above in regard to the distribution rules and shown below.

7. Select your location and draw your Geofence, the area in which Snapchatters can access your On-Demand Filter. The price should display in the top right corner. Once you're done, click 'Checkout.'



See *On-Demand Filters*, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/purchase-filter> (last visited Aug. 5, 2020).

65. Then, in response to receiving the GPS location indication from the mobile devices, the digital image processing functions (filters or lenses) are automatically forwarded to the mobile devices having a GPS indication that matches the distribution rule geographic location, as explained above. As mentioned, the matching filters and lenses are made available to Snapchatters “when they’re located” in the location associated with the applicable Geofence, and meet any additional applicable distribution rules. The filters (on the left below) and lenses (on the right below) are made available, for example, as follows:



See Snapchat Ad formats, SNAP INC., <https://forbusiness.snapchat.com/advertising/ad-formats> (last visited Aug. 5, 2020). As shown, the filters and lenses are then “set to be used by an application [e.g., Snapchat] executed on said at least one mobile device to process a digital image [e.g., photo or video] designated at said at least one mobile device to create an output digital image [e.g., the photo or video with the filter or lens selected and applied].” The filters and lenses are automatically and quickly added to the Snapchat application without any user or manual involvement.

66. The Accused Products and Services include each and every element of claims 2 through 11, as well. For example, many of the filters and lenses comprise an overlay function (claim 2) or add an icon to the photo or video (claim 9) as shown, for example, in paragraph 28 above. Many of the filters and lenses also comprise a black and white, sepia, or antique function set to be used by the application as set forth in claim 3 and shown, for example, below. *See, e.g., How to Use Filters*, SNAP INC., <https://support.snapchat.com/en-US/a/geofilters> (last visited Aug. 5, 2020) (“Filters can add color effects”); *L’Oreal Men Expert Success Story*, SNAP INC., <https://forbusiness.snapchat.com/inspiration/loreal-men-expert-successfully-launched-their-new-styling-products-via-snapchat> (last visited Aug. 5, 2020) (shown below);



Snap ML Overview, SNAP INC., <https://lensstudio.snapchat.com/guides/machine-learning/ml-overview/> (last visited Aug. 5, 2020) (referring to lenses; shown below);

For example, one model may take the camera input, run it through the computational graph, and arrive at a texture which colors the sky in white, and everywhere else in black. In other words, this model segments the sky.



Custom Segmentation, SNAP INC., <https://lensstudio.snapchat.com/templates/ml/custom-segmentation/> (last visited Aug. 5, 2020) (discussing color correction for lenses; shown below).

For example, let's say we added a color correction object to make our image be **sepia** toned.



67. In the Accused Products and Services, the “using by at least one server having at least one hardware processor one or more digital image processing functions” comprises accessing a plurality of image processing functions (filters or lenses), each with its associated geographic location, as set forth in claim 4, and a plurality of filters or lenses associated with a plurality of geographic locations are forwarded over the network to the applicable user’s mobile device based on a match between each distribution rule location and the mobile device’s GPS location indication as set forth in claim 5. As explained by Snap, a plurality of filters or lenses are made available to a user at any given time based on distribution rules they match with, including location. *See, e.g., Filters FAQ, SNAP INC., <https://support.snapchat.com/en-US/article/on-demand-geofilter-faq>* (last visited Aug. 5, 2020) (“Personalized Filters become available to Snapchatters when they’re located in the Geofence during the scheduled time.”); *see also* paragraph 64 *supra*. Further, as explained and shown in paragraph 65, above, and as set forth in claim 6, the Snapchat application includes a GUI that displays the plurality of processing functions.

68. The Accused Products and Services, and specifically the Snapchat application, further include program code to publish the output image (image with the filter or lens applied) in one or more social networks (*e.g.*, Snapchat) as required by claim 7 and explained, for example:

To add a Filter to a Snap...

1. Create a Snap 
2. Swipe left or right to choose a Filter
3. Tap  to layer multiple Filters

To use Face Lenses...

1. Go to the Camera screen
2. Tap on a **face** to launch the carousel 
3. Swipe on the carousel and tap one of the Lenses 
4. Tap or hold  to capture the Snap!

To send a Snap...

1. Create a Snap 
2. Tap  at the bottom to go to the **Send To** screen
3. Select the friends, Groups, and Stories you want to send the Snap to 
4. Tap  at the bottom to send your Snap!

See How to Use Filters, SNAP INC., <https://support.snapchat.com/en-US/article/geofilters> (last visited Aug. 5, 2020); How to Use Lenses, SNAP INC., <https://support.snapchat.com/en-US/article/face-world-lenses> (last visited Aug. 5, 2020); Send a Snap, SNAP INC., <https://support.snapchat.com/en-US/article/send-snap> (last visited Aug. 5, 2020). The Snapchat application also includes program code to store the output image on the mobile device as set forth in claim 8:

You can save Snaps and Stories to Memories, send your Memories to friends, access your Camera Roll, and more!

Swipe up from the Camera screen to open Memories 

Save a New Snap to Memories 

To save a Snap to Memories, create a Snap and tap  at the bottom.

Send, Edit, Delete, or Export Snaps in Memories 

You can send saved Snaps to your friends, add them to **My Story**, delete them from Memories, or export them to your Camera Roll.

See How to Use Memories, SNAP INC., <https://support.snapchat.com/en-US/a/about-memories> (last visited Aug. 5, 2020).

69. Furthermore, in the Accused Products and Services the image processing function is often set to be used by the Snapchat application to process a video designated at the mobile device to create an output digital video as claimed in claim 10. *See, e.g., Create a Snap*, SNAP INC., <https://support.snapchat.com/en-US/a/capture-a-snap> (last visited Aug. 5, 2020) (discussing Snap videos). As explained and shown above, the filters and lenses may be used with videos and images.

70. The Accused Products and Services also involve receiving the processed digital image and monitoring events pertaining to it for a Campaign competition as set forth in claim 11. For example, Snap's Ad Manager Reporting and/or Delivery Insights Reporting enable monitoring of events pertaining to processed digital images and campaigns. *See, e.g., Manage Campaigns*, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/manage-campaigns> (last visited Aug. 5, 2020); *Ads Manager Reporting with Delivery Insights*, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/about-delivery> (last visited Aug. 5, 2020). Snap has also made Campaign competitions available on Snapchat for various companies. *See, e.g., Snapchat Campaigns to Inspire Snap Strategy*, WALLAROO (Nov. 17, 2019), <https://wallaroomedia.com/blog/snapchat/25-snapchat-campaigns-to-inspire-snap-strategy/> (discussing Mondelez candy competition on Snapchat); *5 Creative Snapchat Campaigns to Learn From*, DIGITAL MARKETING INSTITUTE, <https://digitalmarketinginstitute.com/en-us/blog/5-snapchat-marketing-campaigns-to-learn-from> (discussing Grubhub recruiting competition on Snapchat).

71. Snap has also instructed and/or directed, and continues to instruct and/or direct, third parties, including customers and sponsors, in the United States to use the Accused Products and Services, which directly infringed and are infringing claims 1-11 of the '866 Patent. As set forth above, Snap provides instructions to third parties on how to use the Accused Products and

Services in a manner that Snap knows infringes the claims of the '866 Patent. At least Snap's Business Center and Snapchat Support pages, and the content contained therein, describe how to use the infringing Accused Products and Services and highlight infringing features, including the use of distribution rules and content processing functions, to customers. *See, e.g., Business Center, SNAP INC., <https://businesshelp.snapchat.com/en-US> (last visited Aug. 5, 2020); Snapchat Support, SNAP INC., <https://support.snapchat.com/en-US> (last visited Aug. 5, 2020).*

72. Upon information and belief, at least as early as 2017, Snap knew or was willfully blind to how the Accused Products and Services infringed and infringe the '866 Patent. Nevertheless, Snap has been and is actively inducing infringement of the '866 Patent by actively and knowingly inducing third parties to commit acts that Snap knows constitute infringement of the '866 Patent.

73. Thus, Snap has actively and knowingly intended to aid, abet, direct, encourage, or otherwise instruct third parties via the sale of the Accused Products and Services, and provision of instructions regarding using such Accused Products and Services in the manner described in the asserted claims of the '866 Patent, to infringe the '866 Patent by and through their use of the Accused Products and Services. Therefore, Snap has and continues to induce infringement of claims 1-11 of the '866 Patent in violation of the patent laws of the United States, and in particular 35 U.S.C. §§ 271, *et seq.*

74. Snap's conduct, as described herein, also constitutes contributory infringement of '866 Patent. Snap knew that the Accused Products and Services were being made and distributed for the purpose of users and/or businesses to infringe the '866 Patent. Moreover, the Accused Products and Services have no substantial non-infringing uses, and are material to the infringement of the '866 Patent

75. As a result of Snap's infringement of the '866 Patent, Sanderling has suffered and continues to suffer monetary damages, and seeks recovery in an amount to compensate Sanderling for Snap's infringement, in no event less than a reasonable royalty for Snap's use of the patented invention, together with interest and costs as fixed by the Court.

76. On information and belief: (i) Snap cannot reasonably believe that its actions do not constitute infringement of the '866 Patent and/or are not highly likely to constitute infringement of the '866 Patent, and/or (ii) Snap knows or is willfully blind to the fact that its actions constitute infringement of the '866 Patent and/or are highly likely to constitute infringement of the '866 Patent. Nevertheless, Snap persists with its infringing activities. Accordingly, Snap has willfully infringed and/or will continue to willfully infringe one or more claims of the '866 Patent.

77. Pursuant to 35 U.S.C. § 284, enhanced damages of up to three times the amount found or assessed are therefore warranted against Snap. Snap's actions further make this an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

78. Sanderling has suffered and will continue to suffer irreparable harm in the future unless Snap's infringing activities are enjoined by this Court.

COUNT III
INFRINGEMENT OF THE '986 PATENT

79. Sanderling re-alleges and incorporates by reference the allegations set forth in paragraphs 1 through 78.

80. Sanderling owns all right, title, and interest in and to the '986 Patent.

81. Snap had knowledge of the '986 Patent prior to the filing of this lawsuit.

82. Indeed, upon information and belief, Snap was aware of the application that issued as the '986 Patent--and its applicability to Snapchat's actual and/or planned features--by no later

than 2017, when Snap: (a) was involved in discussions concerning the Asserted Patents, and (b) identified at least the great-grandparent '074 Patent in a number of its IDS Forms to the USPTO. Snap has had knowledge of the '986 Patent since at least as early as the date it issued.

83. Snap has infringed and is infringing the '986 Patent--including at least claims 1 through 34--literally or under the doctrine of equivalents, by making, using, importing, selling and/or offering for sale in the United States the Accused Products and Services without Sanderling's permission, in violation of the patent laws of the United States, and in particular 35 U.S.C. §§ 271, *et seq.*

84. Specifically, the Accused Products and Services practice every single element of at least claims 1 through 34 of the '986 Patent.

85. For example, Claim 1 of the '986 Patent claims:⁷

1. A computerized method of distributing a digital media content processing function, said computerized method comprising:
 - accessing at at least one server having at least one hardware processor one or more digital media content processing functions, each of the digital media content processing functions associated with at least one distribution rule defining a sensor data condition;
 - receiving, over a network, sensor data from each of a plurality of mobile devices, wherein the sensor data is determined according to outputs of at least one sensor of each of the plurality of mobile devices; and
 - distributing, over the network, at least one of the digital media content processing functions to at least one of the plurality of mobile devices, based on a match between the sensor data condition defined by the at least one distribution rule associated with the at least one digital media content processing function and the sensor data of the at least one mobile device;
- wherein the at least one digital media content processing function is configured to be used by an application executed on the at

⁷ The allegations contained herein regarding infringement of Claim 1 are merely representative; they illustrate one way in which the Accused Products and Services infringe the '986 Patent, and are not intended to limit Plaintiff's allegations that the Accused Products and Services infringe claims 1 through 34 of the '986 patent.

least one mobile device to process a digital media content to create an output digital media content.

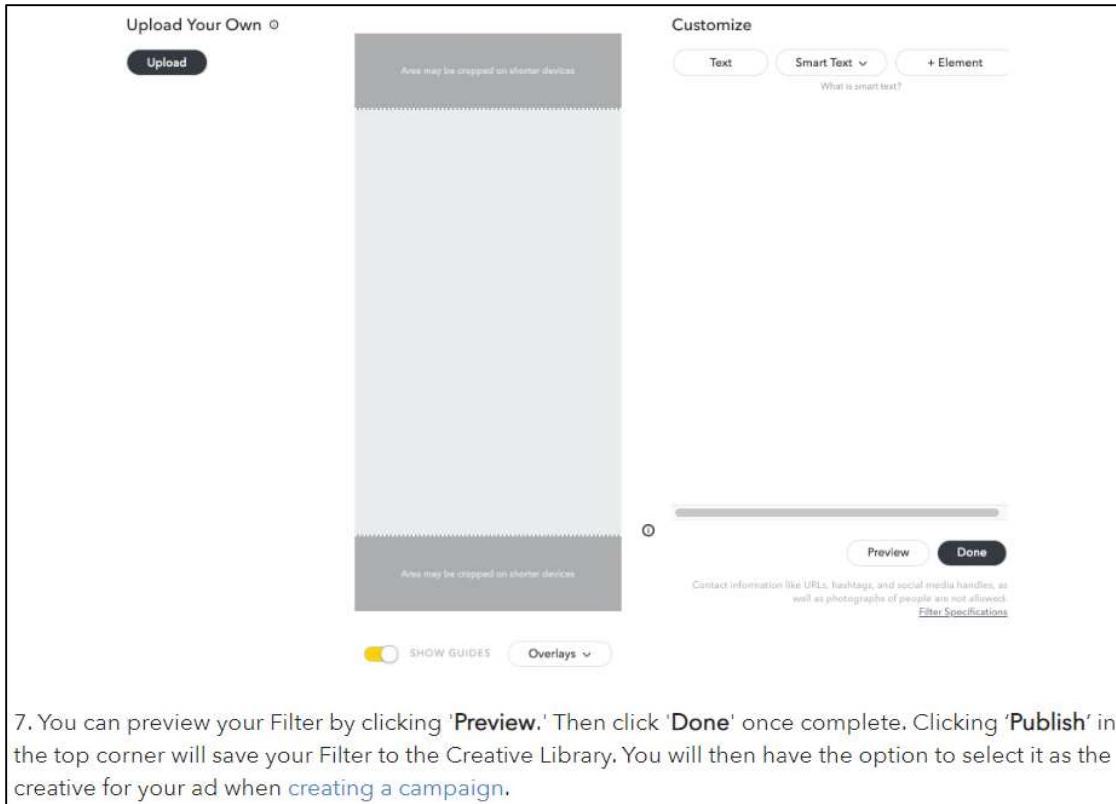
86. As shown and discussed above, the Accused Products and Services are “[a] computerized method of distributing a digital media content processing function,” as evidenced by the images and descriptions above of the Snap filters and lenses, which add overlays, artwork, animations, and the like to images and videos. *See, e.g.*, paragraph 28 *supra*.

87. The Accused Products and Services involve “accessing at least one server having at least one hardware processor one or more digital media content processing functions, each of the digital media content processing functions associated with at least one distribution rule defining a sensor data condition,” as claimed. The Accused Products and Services involve “accessing at least one server having at least one hardware processor one or more digital media content processing functions” (*e.g.*, filters and lenses) each associated with at least one distribution rule, as shown below. Snap develops and creates, and encourages and assists its customers and business partners to develop or create, filters and lenses, and uploads them to Snap’s Ads Manager:

Lens Web Builder

Advertisers can create their own Lenses directly in their browser with Lens Web Builder, a web-based application for creating augmented reality ads in Ads Manager.

See Create Lenses, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/lens-create-ads>.
(last visited Aug. 5, 2020).



See Filters in Ads Manager, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/upload-filter> (last visited Aug. 5, 2020). These filters and lenses are then accessible for Snap to access and publish, including as requested by the user or sponsor. *See, e.g., Advanced Campaign Guide, SNAP INC., <https://businesshelp.snapchat.com/en-US/a/create-first-campaign>* (last visited Aug. 5, 2020) (discussing process of setting up ad campaign and review by Snap team before publishing or delivery).

88. The filter or lens is associated with at least one distribution rule defining a sensor data condition. For example, a distribution rule in the Accused Products and Services can relate to users' behaviors, specific locations or addresses, location categories (*e.g.*, ski resorts, beaches, bars, etc.), certain days or times, etc. *See, e.g., Edit Campaigns, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/edit-campaign>* (last visited Aug. 5, 2020);

Dayparting, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/dayparting> (last visited Aug. 5, 2020); *see also*:

When creating your campaigns, you can choose predefined audiences to help you reach specific Snapchatters.

Predefined Audiences have been built and packaged using Snapchat and third-party data, allowing you to reach people based on their online and real world interests and behaviors.

Predefined Audiences, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/predefined-audience> (last visited Aug. 5, 2020);

You can choose to target an exact location by inputting a specific address or a latitude and longitude pair, or dropping a pin in an exact location on the map.

You can also choose a **location radius** by selecting how many miles (in the United States) or kilometers (rest of world) you'd like to target around an address, latitude and longitude pair, places (cities/municipalities), or places of interest. You can do this by inputting an amount in the bottom right corner or by clicking the green pin inside the radius.

These are pre-determined packages you can target. With Location Categories, you can search for certain locations you're interested in that are provided by Snapchat. These spaces can range from music venues and beaches, to car dealers and movie theaters. You can access Location Categories by clicking '**Target Locations on Map**' and searching for a specific Location Category.

Location Targeting, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/location-targeting> (last visited Aug. 5, 2020);

6. Select start and end dates and times for when you would like Snapchatters to be able to use your Filter. By selecting 'Repeating Event' you can choose to have your Filter run at certain times daily or weekly. An On-Demand Filter can be active for one hour up to 30 consecutive or non-consecutive calendar days or even year-round by purchasing an Annual Filter.

On-Demand Filters, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/purchase-filter> (last visited Aug. 5, 2020).

89. The Accused Products and Services also include “receiving, over a network, sensor data from each of a plurality of mobile devices, wherein the sensor data is determined according to outputs of at least one sensor of each of the plurality of mobile devices; and distributing, over the network, at least one of the digital media content processing functions to at least one of the

plurality of mobile devices, based on a match between the sensor data condition defined by the at least one distribution rule associated with the at least one digital media content processing function and the sensor data of the at least one mobile device,” as claimed. As just one example, Snap receives from each user’s mobile device, its location, which is determined according to a GPS module installed on the mobile device, so that Snap can send applicable filters and lenses, among other things. As explained by Snap, the “[l]ocation indicators are used from Snapchatters’ devices to determine where they are.” *See, e.g., Filters FAQ, SNAP INC., <https://support.snapchat.com/en-US/article/on-demand-geofilter-faq>* (last visited Aug. 5, 2020).

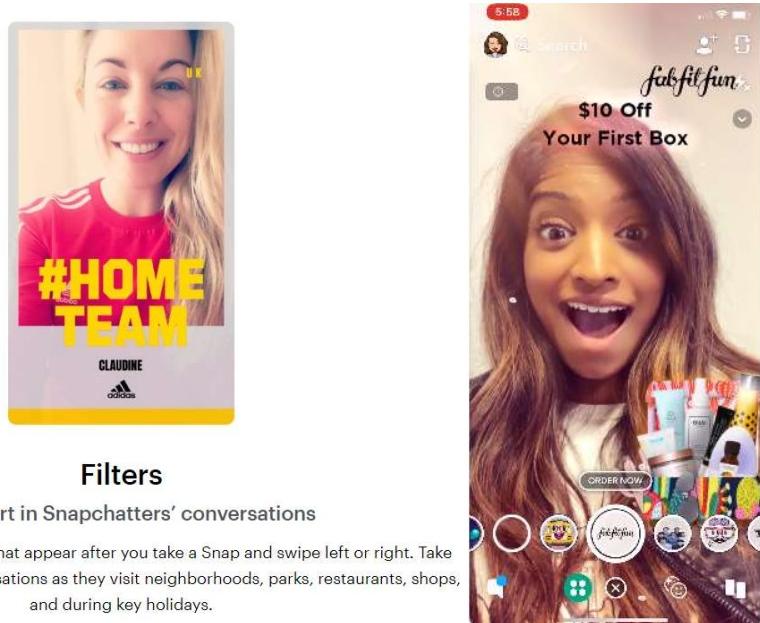
90. As explained by Snap, “[p]ersonalized Filters become available to Snapchatters when they’re located in the Geofence during the scheduled time,” *e.g.*, when there is a match between their location and the Geofence (distribution rule). *See id.; Reach and Frequency Campaign Guide, SNAP INC., <https://businesshelp.snapchat.com/en-US/a/reach-frequency-campaign>* (last visited Aug. 5, 2020) (discussing availability of lenses based on location or other distribution rules). The Geofence is the location or area in which Snap makes a filter or lens available to Snapchatters, as explained above in regard to the distribution rules and shown below.

7. Select your location and draw your Geofence, the area in which Snapchatters can access your On-Demand Filter. The price should display in the top right corner. Once you're done, click 'Checkout.'



See *On-Demand Filters*, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/purchase-filter> (last visited Aug. 5, 2020).

91. Then, in response to receiving the GPS location indication from the mobile devices, the digital media content processing functions (filters or lenses) are automatically forwarded to the mobile devices having a GPS indication that matches the distribution rule geographic location as explained above. As mentioned, the matching filters and lenses are made available to Snapchatters “when they’re located” in the location associated with the applicable Geofence, and meet any additional applicable distribution rules. The filters (on the left below) and lenses (on the right below) are made available, for example, as follows:



See *Snapchat Adformats*, SNAP INC., <https://forbusiness.snapchat.com/advertising/ad-formats> (last visited Aug. 5, 2020). As shown, the filters and lenses are then “configured to be used by an application [e.g., Snapchat] executed on the at least one mobile device to process a digital media content [e.g., photo or video] to create an output digital media content [e.g., the photo or video with the filter or lens selected and applied].” The filters and lenses are automatically and quickly added to the Snapchat application without any user or manual involvement.

92. Additional sensor data like the time of day set forth in the Quaker Oats example above, the speed of a user/mobile device, the temperature, etc. may be and is used by the Accused Products and Services in the same manner as described herein with respect to location data. The Accused Products and Services thus likewise infringe the asserted claims of the '986 Patent based on any type of sensor data used in a manner described herein.

93. The Accused Products and Services include each and every element of claims 2-34, as well. For example, the Accused Products and Services meet each and every element of claim 18 as set forth in the analysis of claim 1, above, and elsewhere herein. Further, the digital media content may be, and often is, a digital photograph as described and shown in some of the examples in paragraph 28 and claimed in claims 2 and 19. The digital media content processing functions (filters and lenses) may take a variety of forms, including, without limitation, an overlay function (claims 5 and 22), including wherein the overlay is associated with a sporting event (claims 6 and 23; see *Coca-Cola Success Story*, SNAP INC., <https://forbusiness.snapchat.com/inspiration/coca-cola-owns-the-2018-world-cup-with-a-national-animated-filter> (last visited Aug. 5, 2020)), or adding an icon to the photo or video (claim 13 and 30) as shown, for example, in paragraph 28, above. The digital media content processing functions (filters and lenses) may also involve analyzing a content depicted in the digital media content to create the output digital media content based on the results of analyzing the content as shown, in just one example, below (claims 3 and 20).



See *Colgate Success Story*, SNAP INC., <https://forbusiness.snapchat.com/inspiration/colgate-optic-white-launch-exceeds-all-expectations-across-uae-and-ksa> (last visited Aug. 5, 2020).

94. Many of the filters and lenses also comprise a black and white, sepia, or antique function set to be used by the application as set forth in claims 7 and 24, or color correction, cropping, or rotation as set forth in claims 17 and 34, and shown, for example, below. *See, e.g., How to Use Filters*, SNAP INC., <https://support.snapchat.com/en-US/a/geofilters> (last visited Aug. 5, 2020) (“Filters can add color effects”); *L’Oreal Men Expert Success Story*, SNAP INC., <https://forbusiness.snapchat.com/inspiration/loreal-men-expert-successfully-launched-their-new-styling-products-via-snapchat> (last visited Aug. 5, 2020) (shown below); *Creative Inspiration General*, SNAP INC., <https://forbizv2-dot-development-dot-advertising-web.appspot.com/inspiration/general-mills-honey-nut-cheerios> (last visited Aug. 5, 2020).



Snap ML Overview, SNAP INC., <https://lensstudio.snapchat.com/guides/machine-learning/ml-overview/> (last visited Aug. 5, 2020) (shown below);

For example, one model may take the camera input, run it through the computational graph, and arrive at a texture which colors the sky in white, and everywhere else in black. In other words, this model segments the sky.



Custom Segmentation, SNAP INC., <https://lensstudio.snapchat.com/templates/ml/custom-segmentation/> (last visited Aug. 5, 2020) (shown below).

For example, let's say we added a color correction object to make our image be **sepia** toned.



Furthermore, the digital media content may be videos (claims 16 and 33). *See, e.g., Create a Snap, SNAP INC., <https://support.snapchat.com/en-US/a/capture-a-snap>* (last visited Aug. 5, 2020) (explaining Snap videos and the use of filters and lenses).

95. In the Accused Products and Services, “accessing at least one server having at least one hardware processor one or more digital media content processing functions comprises accessing a plurality of digital media content processing functions” (filters or lenses), each with its associated distribution rule, as set forth in claims 8 and 25. As explained by Snap, a plurality of filters or lenses are made available to a user at any given time based on distribution rules they match with, including, for example, location. *See, e.g., Filters FAQ, SNAP INC., <https://support.snapchat.com/en-US/article/on-demand-geofilter-faq>* (last visited Aug. 5, 2020) (“Personalized Filters become available to Snapchatters when they’re located in the Geofence during the scheduled time.”); *see also* paragraph 90, *supra*. As such, the claimed sensor may comprise a location determining device as described above (claims 4 and 21) or, for example, an accelerometer as shown, for example, in paragraph 28 (claims 9 and 26). Further, as explained and shown in paragraph 91 above, and as set forth in claims 10 and 27, the Snapchat application includes a GUI that displays the at least one digital media content processing function.

96. The Accused Products and Services, and specifically the Snapchat application, further include program code to publish the output digital media content (image or video with the

filter or lens applied) in one or more social networks (*e.g.*, Snapchat) as required by claims 11 and 28, and explained, for example:

To add a Filter to a Snap...

1. Create a Snap 
2. Swipe left or right to choose a Filter
3. Tap  to layer multiple Filters

To use Face Lenses...

1. Go to the Camera screen
2. Tap on a face to launch the carousel 
3. Swipe on the carousel and tap one of the Lenses 
4. Tap or hold  to capture the Snap!

To send a Snap...

1. Create a Snap 
2. Tap  at the bottom to go to the Send To screen
3. Select the friends, Groups, and Stories you want to send the Snap to 
4. Tap  at the bottom to send your Snap!

See How to Use Filters, SNAP INC., <https://support.snapchat.com/en-US/article/geofilters> (last visited Aug. 5, 2020); How to Use Lenses, SNAP INC., <https://support.snapchat.com/en-US/article/face-world-lenses> (last visited Aug. 5, 2020); Send a Snap, SNAP INC., <https://support.snapchat.com/en-US/article/send-snap> (last visited Aug. 5, 2020). The Snapchat application also includes program code to store the output digital media content on the mobile device as set forth in claims 12 and 29:

You can save Snaps and Stories to Memories, send your Memories to friends, access your Camera Roll, and more!

Swipe up from the Camera screen to open Memories 

Save a New Snap to Memories 

To save a Snap to Memories, create a Snap and tap  at the bottom.

Send, Edit, Delete, or Export Snaps in Memories 

You can send saved Snaps to your friends, add them to My Story, delete them from Memories, or export them to your Camera Roll.

See How to Use Memories, SNAP INC., <https://support.snapchat.com/en-US/a/about-memories> (last visited Aug. 5, 2020).

97. As set forth in claims 14 and 31, in the Accused Products and Services “accessing at at least one server having at least one hardware processor one or more digital media content processing functions comprises altering, in a time interval of a few seconds or less, a distribution rule.” For example, Snap explains how to quickly and easily edit campaign distribution rules through Ads Manager. See, e.g., *Edit Campaigns*, SNAP INC., <https://businesshelp.snapchat.com/en-US/article/edit-campaign> (last visited Aug. 5, 2020) (“1. Log in to Ads Manager. 2. Click the menu in the top corner and select ‘Manage Ads.’ 3. Select ‘Ad Sets’ and click ‘Edit’ under the name of the ad set you’d like to edit. 4. Make adjustments to your ad set and click ‘Save & Close.’”); *Snapchat lets sports fans overlay real-time graphics on images, videos*, DIGITALTRENDS (Feb. 1, 2016), <https://www.digitaltrends.com/social-media/snapchat-live-score-geofilters/>. As explained, the filters and lenses are also “configured to be used in a time interval of few seconds or less” by the Snapchat application on each mobile device as set forth above and claimed in claims 15 and 32.

98. Snap has also instructed and/or directed, and continues to instruct and/or direct, third parties, including customers and sponsors, in the United States to use the Accused Products and Services, which directly infringed and are infringing claims 1-34 of the ’986 Patent. As set forth above, Snap provides instructions to third parties on how to use the Accused Products and Services in a manner that Snap knows infringes the claims of the ’986 Patent. At least Snap’s Business Center and Snapchat Support pages, and the content contained therein, describe how to use the infringing Accused Products and Services and highlight infringing features, including the use of distribution rules and content processing functions, to customers. See, e.g., *Business Center*,

SNAP INC., <https://businesshelp.snapchat.com/en-US> (last visited Aug. 5, 2020); *Snapchat Support*, SNAP INC., <https://support.snapchat.com/en-US> (last visited Aug. 5, 2020).

99. Upon information and belief, at least as early as the issuance of the '986 Patent, Snap knew or was willfully blind to how the Accused Products and Services infringed and infringe the '986 Patent. Nevertheless, Snap has been and is actively inducing infringement of the '986 Patent by actively and knowingly inducing third parties to commit acts that Snap knows constitute infringement of the '986 Patent.

100. Thus, Snap has actively and knowingly intended to aid, abet, direct, encourage, or otherwise instruct third parties via the sale of the Accused Products and Services, and provision of instructions regarding using such Accused Products and Services in the manner described in the asserted claims of the '986 Patent, to infringe the '986 Patent by and through their use of the Accused Products and Services. Therefore, Snap has and continues to induce infringement of claims 1-34 of the '986 Patent in violation of the patent laws of the United States, and in particular 35 U.S.C. §§ 271, *et seq.*

101. Snap's conduct, as described herein, also constitutes contributory infringement of '986 Patent. Snap knew that the Accused Products and Services were being made and distributed for the purpose of users and/or businesses to infringe the '986 Patent. Moreover, the Accused Products and Services have no substantial non-infringing uses, and are material to the infringement of the '986 Patent.

102. As a result of Snap's infringement of the '986 Patent, Sanderling has suffered and continues to suffer monetary damages, and seeks recovery in an amount to compensate Sanderling for Snap's infringement, in no event less than a reasonable royalty for Snap's use of the patented invention, together with interest and costs as fixed by the Court.

103. On information and belief: (i) Snap cannot reasonably believe that its actions do not constitute infringement of the '986 Patent and/or are not highly likely to constitute infringement of the '986 Patent, and/or (ii) Snap knows or is willfully blind to the fact that its actions constitute infringement of the '986 Patent and/or are highly likely to constitute infringement of the '986 Patent. Nevertheless, Snap persists with its infringing activities. Accordingly, Snap has willfully infringed and/or will continue to willfully infringe one or more claims of the '986 Patent.

104. Pursuant to 35 U.S.C. § 284, enhanced damages of up to three times the amount found or assessed are therefore warranted against Snap. Snap's actions further make this an exceptional case supporting an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

105. Sanderling has suffered and will continue to suffer irreparable harm in the future unless Snap's infringing activities are enjoined by this Court.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Sanderling hereby demands trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully prays for the following relief:

A. That the Court enter judgment that each Asserted Patent is enforceable and infringed by Defendant, literally and/or under the doctrine of equivalents, and that Defendant's infringement is and has been willful.

B. That the Court enter judgment that Defendant has engaged in induced infringement of one or more claims of each Asserted Patent.

C. That the Court enter judgment that Defendant has engaged in contributory infringement of one or more claims of each Asserted Patent.

D. That the Court enter a judgment and order against Defendant and awarding to Plaintiff all damages adequate to compensate Plaintiff for Defendant's direct or indirect infringement of the Asserted Patents, together with interests, costs and disbursements, and treble damages pursuant to 35 U.S.C. § 284.

E. That the Court enter a judgment and order requiring Defendant to provide accountings and to pay additional and/or supplemental damages to Plaintiff, including without limitation: (i) with respect to any sales or revenues not presented at trial, (ii) post-judgment reasonable royalty damages, (iii) prejudgment interest and (iv) post-judgment interest.

F. That the Court enter a permanent injunction to prevent Defendant and its subsidiaries, parents, divisions, directors, officers, agents, servants, employees and all other persons in active concert or privity or in participation with them, from making, using, selling, offering for sale, importing or distributing, or inducing others to make, use, sell, offer for sale, import or distribute, the Accused Products and Services and any other product or service that infringes any of the Asserted Patents.

G. That the Court enter a judgment that this case is exceptional, and to award Plaintiff all of its costs, expenses and reasonable attorneys' fees under 35 U.S.C. § 285 and all other applicable statutes and rules in common law that would be appropriate; and

H. That Plaintiff be awarded such other and further relief as this Court may deem just and proper under the circumstances.

Dated: August 6, 2020

Respectfully submitted,

/s/ Timothy J. Carroll

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